



## Safety Data Sheet

**bluechem**   
**GROUP**

according to UK REACH Regulation

### Octane Booster

Revision date: 16.08.2021

Product code: 1313

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Octane Booster

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### Use of the substance/mixture

Increase the ROZ-octane number.

### 1.3. Details of the supplier of the safety data sheet

Company name:	CTP GmbH	
Street:	Saalfelder Strasse 35h	
Place:	D-07338 Leutenberg	
Telephone:	+49 (0)36734 230-0	Telefax: +49 (0)36734 230-22
e-mail:	msds@bluechemgroup.com	
Contact person:	Jens Moeller, Dipl.-Chem.	Telephone: +49 (0)36734 230-19
Internet:	www.bluechemgroup.com	

### 1.4. Emergency telephone number:

GBK GmbH: +49-(0)6132-84463 (24/7)

#### Further Information

Article Number: 33200, 33201, 33202, 33204, 33206

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### GB CLP Regulation

Hazard categories:

Flammable liquid: Flam. Liq. 2

Acute toxicity: Acute Tox. 4

Aspiration hazard: Asp. Tox. 1

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Reproductive toxicity: Repr. 2

Specific target organ toxicity - single exposure: STOT SE 3

Specific target organ toxicity - single exposure: STOT SE 3

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

Highly flammable liquid and vapour.

Harmful if inhaled.

May be fatal if swallowed and enters airways.

Causes skin irritation.

Causes serious eye irritation.

Suspected of damaging the unborn child.

May cause respiratory irritation.

May cause drowsiness or dizziness.

May cause damage to organs through prolonged or repeated exposure.

Harmful to aquatic life with long lasting effects.

### 2.2. Label elements

#### GB CLP Regulation

#### Hazard components for labelling

xylene

toluene

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**Signal word:** Danger

**Pictograms:**



### Hazard statements

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

### Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331	Do NOT induce vomiting.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405	Store locked up.
P501	Dispose of this material and its container to hazardous or special waste collection point.

### Labelling of packages where the contents do not exceed 125 ml

**Signal word:** Danger

**Pictograms:**



### Hazard statements

H304-H332-H335-H336-H361d-H373-H412

### Precautionary statements

P101-P102-P260-P271-P301+P310-P331-P405-P501

### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Ignition improver

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### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
1634-04-4	tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE			40 - < 45 %
	216-653-1		01-2119452786-27	
	Flam. Liq. 2, Skin Irrit. 2; H225 H315			
1330-20-7	xylene			35 - < 40 %
	215-535-7		01-2119488216-32	
	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1; H226 H332 H312 H315 H319 H335 H373 H304			
108-88-3	toluene			20 - < 25 %
	203-625-9		01-2119471310-51	
	Flam. Liq. 2, Repr. 2, Skin Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1, Aquatic Chronic 3; H225 H361d H315 H336 H373 H304 H412			
	Poly[oxy(1,2-butanediyl)], .alpha.-(3-aminopropyl)-.gamma.-hydroxy-, C11-14-isoalkyl ethers, C13-rich (Polyetheramines)			1 - < 5 %
	Aquatic Chronic 2; H411			

Full text of H and EUH statements: see section 16.

### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
1634-04-4	216-653-1	tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE	40 - < 45 %
		inhalation: LC50 = 120,3-142 mg/l (vapours); dermal: LD50 = >2000 mg/kg; oral: LD50 = >2000 mg/kg	
1330-20-7	215-535-7	xylene	35 - < 40 %
		inhalation: LC50 = 21,7 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 3200 mg/kg; oral: LD50 = 4300 mg/kg	
108-88-3	203-625-9	toluene	20 - < 25 %
		inhalation: LC50 = 49 mg/l (vapours); dermal: LD50 = 12200 mg/kg	
		Poly[oxy(1,2-butanediyl)], .alpha.-(3-aminopropyl)-.gamma.-hydroxy-, C11-14-isoalkyl ethers, C13-rich (Polyetheramines)	1 - < 5 %
		dermal: LD50 = >2000 mg/kg; oral: LD50 = >5000 mg/kg	

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Move victim to fresh air. Put victim at rest and keep warm.

#### After inhalation

Move victim to fresh air. Put victim at rest and keep warm.

In case of difficulties of breathing consult physician.

If victim is at risk of losing consciousness, position and transport on their side.

#### After contact with skin

Take off immediately all contaminated clothing, including underwear and shoes .

After contact with skin, wash immediately with plenty of water and soap.

Rub greasy ointment into the skin.

#### After contact with eyes

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart.

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Consult physician.

**After ingestion**

Let water be drunken in little sips (dilution effect). Consult physician.

**4.2. Most important symptoms and effects, both acute and delayed**

Frequently or prolonged contact with skin may cause dermal irritation.

Irritation of eyes: Irritant effect possible.

After ingestion: Harmful: may cause lung damage if swallowed.

Harmful by inhalation.

**4.3. Indication of any immediate medical attention and special treatment needed**

Warning about danger of aspiration.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Extinguishing powder. Sand. alcohol resistant foam. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media**

High power water jet.

**5.2. Special hazards arising from the substance or mixture**

Formation of decomposition products possible.

In case of fire and/or explosion do not breathe fumes.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Cool endangered container in case of fire.

Contaminated fire-fighting water must be collected separately.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

In case of fire: Wear self-contained breathing apparatus.

Keep away from sources of ignition - No smoking.

**6.2. Environmental precautions**

Beat down gas/vapours/mist with water spray.

Do not allow to enter into surface water or drains.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

**6.3. Methods and material for containment and cleaning up**

Prevent spreading of spillages (e.g. by oil barrier).

Wipe up with absorbent material (eg. cloth, fleece).

**6.4. Reference to other sections**

No data

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Closed devices. Vapours / aerosols must be extracted by suction immediately at point of origin.

Avoid contact with skin and eyes.

**Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

**7.2. Conditions for safe storage, including any incompatibilities**

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### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

### Further information on storage conditions

Packaging materials: metal.

### 7.3. Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
1634-04-4	Methyl-tert-butyl ether	50	183.5		TWA (8 h)	WEL
		100	367		STEL (15 min)	WEL
108-88-3	Toluene	50	191		TWA (8 h)	WEL
		100	384		STEL (15 min)	WEL
1330-20-7	Xylene: mixed isomers	50	220		TWA (8 h)	WEL
		100	441		STEL (15 min)	WEL

#### Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
1330-20-7	Xylene, o-, m-, p- or mixed isomers	methyl hippuric acid (creatinine)	650 mmol/mol	urine	Post shift

### 8.2. Exposure controls

#### Protective and hygiene measures

When using do not eat, drink or smoke.

Wash hands before breaks and after work.

#### Eye/face protection

Wear tightly sealed safety glasses against possible splashes into the eyes. (DIN EN 166)

#### Hand protection

Tested protective gloves are to be worn: Butyl rubber. (EN ISO 374)

#### Skin protection

Wear suitable solvent-proof protective clothing according to EN 465.

#### Respiratory protection

In case of accumulation of fumes/aerosols, provide adequate ventilation.

In case of insufficient ventilation, wear suitable respiratory equipment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state: liquid  
 Colour: colored  
 Odour: aromatic

#### Changes in the physical state

Flash point: -5 °C



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Lower explosion limits:

Upper explosion limits:

Density (at 20 °C):

0,815 g/cm<sup>3</sup>

Water solubility:  
(at 20 °C)

insoluble

#### **Solubility in other solvents**

Organic solvents

#### **9.2. Other information**

No data

### **SECTION 10: Stability and reactivity**

#### **10.1. Reactivity**

No information available.

#### **10.2. Chemical stability**

No decomposition when used as intended.

#### **10.3. Possibility of hazardous reactions**

No dangerous reactions are known.

#### **10.4. Conditions to avoid**

Only use the material in places where open light, fire and other flammable sources can be kept away.

#### **10.5. Incompatible materials**

Oxidizing agents. acid, concentrated. Alkalis (alkalis), concentrated.

#### **10.6. Hazardous decomposition products**

Carbon monoxide (CO)., Carbon dioxide (CO<sub>2</sub>).

### **SECTION 11: Toxicological information**

#### **11.1. Information on toxicological effects**

##### **Acute toxicity**

Harmful if inhaled.

##### **ATEmix calculated**

ATE (inhalation aerosol) 4,167 mg/l

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
1634-04-4	tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE				
	oral	LD50 >2000 mg/kg	Rat		
	dermal	LD50 >2000 mg/kg	Rat		
	inhalation (4 h) vapour	LC50 120,3-142 mg/l	Rat		
1330-20-7	xylene				
	oral	LD50 4300 mg/kg	Rat		
	dermal	LD50 3200 mg/kg	Rabbit		
	inhalation (4 h) vapour	LC50 21,7 mg/l	Rat		
	inhalation aerosol	ATE 1,5 mg/l			
108-88-3	toluene				
	dermal	LD50 12200 mg/kg	Rabbit	GESTIS	
	inhalation (4 h) vapour	LC50 49 mg/l	Rat	GESTIS	
	Poly[oxy(1,2-butanediyl)], .alpha.-(3-aminopropyl)-.gamma.-hydroxy-, C11-14-isoalkyl ethers, C13-rich (Polyetheramines)				
	oral	LD50 >5000 mg/kg	Rat		
	dermal	LD50 >2000 mg/kg	Rabbit		

### Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

### Sensitising effects

Based on available data, the classification criteria are not met.

### Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of damaging the unborn child. (toluene)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

### STOT-single exposure

May cause respiratory irritation. (xylene)

May cause drowsiness or dizziness. (toluene)

### STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (xylene; toluene)

### Aspiration hazard

May be fatal if swallowed and enters airways.

### Practical experience

#### Other observations

No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
1634-04-4	tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE					
	Acute fish toxicity	LC50	706 mg/l	96 h	Pimephales promelas	
	Acute algae toxicity	ErC50	>800 mg/l	72 h	Algae	
	Acute crustacea toxicity	EC50	651 mg/l	48 h	Daphnia magna	
1330-20-7	xylene					
	Acute fish toxicity	LC50	26,7 mg/l	96 h	Pimephales promelas	
108-88-3	toluene					
	Acute fish toxicity	LC50	13 mg/l	96 h	Carassius auratus	IUCLID
	Acute algae toxicity	ErC50	12,5 mg/l	72 h		GESTIS
	Poly[oxy(1,2-butanediyl)], .alpha.-(3-aminopropyl)-.gamma.-hydroxy-, C11-14-isoalkyl ethers, C13-rich (Polyetheramines)					
	Acute fish toxicity	LC50	1-10 mg/l	96 h	Fish	
	Acute algae toxicity	ErC50	10-100 mg/l	72 h	Algae	

### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential

Swims on the water.

Low potential of bio-accumulation.

### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
108-88-3	toluene	2,73

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

No information available.

### 12.6. Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations

Do not dispose with household waste.

Do not allow to enter into surface water or drains.

Have to add a Special treatment in compliance with official regulations in contact with approved waste disposal companies and with authorities in charge.

Arrange about the exact waste code with the local waste disposal expert.

#### Contaminated packaging

Contaminated packing must be completely emptied and can be re-used following appropriate cleaning.

Do not pierce, cut up or weld unclean container. (Explosion hazard.)

## SECTION 14: Transport information



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### Land transport (ADR/RID)

**14.1. UN number:** UN 1993  
**14.2. UN proper shipping name:** FLAMMABLE LIQUID, N.O.S.  
 (xylene, toluene, MtBe)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
 Hazard label: 3

Classification code: F1  
 Special Provisions: 274 601 640D  
 Limited quantity: 1 L  
 Excepted quantity: E2  
 Transport category: 2  
 Hazard No: 33  
 Tunnel restriction code: D/E



### Inland waterways transport (ADN)

**14.1. UN number:** UN 1993  
**14.2. UN proper shipping name:** FLAMMABLE LIQUID, N.O.S.  
 (xylene, toluene, MtBe)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
 Hazard label: 3

Classification code: F1  
 Special Provisions: 274 601 640D  
 Limited quantity: 1 L  
 Excepted quantity: E2



### Marine transport (IMDG)

**14.1. UN number:** UN 1993  
**14.2. UN proper shipping name:** FLAMMABLE LIQUID, N.O.S.  
 (xylene, toluene, MtBe)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
 Hazard label: 3

Marine pollutant: -  
 Special Provisions: 274  
 Limited quantity: 1 L  
 Excepted quantity: E2  
 EmS: F-E, S-E



### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number:** UN 1993

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**14.2. UN proper shipping name:** FLAMMABLE LIQUID, N.O.S.  
(xylene, toluene, MtBe)

**14.3. Transport hazard class(es):** 3

**14.4. Packing group:** II

Hazard label: 3



Special Provisions: A3  
Limited quantity Passenger: 1 L  
Passenger LQ: Y341  
Excepted quantity: E2  
IATA-packing instructions - Passenger: 353  
IATA-max. quantity - Passenger: 5 L  
IATA-packing instructions - Cargo: 364  
IATA-max. quantity - Cargo: 60 L

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

### 14.6. Special precautions for user

No information available.

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No information available.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 48

#### Additional information

Contains:

> 30 % hydrocarbons, aromatic.

#### National regulatory information

Water hazard class (D): 2 - obviously hazardous to water

### 15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

tert-butyl methyl ether, 2-methoxy-2-methylpropane, MTBE

xylene

toluene

## SECTION 16: Other information



## Safety Data Sheet

according to UK REACH Regulation

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#### Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Acute Tox. 4; H332	Calculation method
Asp. Tox. 1; H304	Calculation method
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Repr. 2; H361d	Calculation method
STOT SE 3; H335	Calculation method
STOT SE 3; H336	Calculation method
STOT RE 2; H373	Calculation method
Aquatic Chronic 3; H412	Calculation method

#### Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

#### Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*